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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/645,257	08/21/2003	Kailing James Su	1285-0124US	7326

24587 7590 04/20/2007		EXAMINER	
ALCATEL USA		JUNTIMA, NITTAYA	
INTELLECTUAL PROPERTY DEPARTMENT			
3400 W. PLANO PARKWAY, MS LEGL2		ART UNIT	PAPER NUMBER
PLANO, TX 75075		2616	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/20/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

PTOL-90A (Rev. 10/06)

	Application No.	Applicant(s)
Office Action Summary	10/645,257	SU ET AL.
	Examiner	Art Unit	
	Nittaya Juntima	2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *21 August 2003*.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-22* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-22* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *21 August 2003* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☒ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date *8/21/03, 11/8/04*.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

Drawings

1.   The drawings are objected to because:

- in Fig. 3A, the text label "Buffrer" in numeral reference 302 should be changed

to "Buffer."

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to

the Office action to avoid abandonment of the application. Any amended replacement drawing

sheet should include all of the figures appearing on the immediate prior version of the sheet,

even if only one figure is being amended. The figure or figure number of an amended drawing

should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure

must be removed from the replacement sheet, and where necessary, the remaining figures must

be renumbered and appropriate changes made to the brief description of the several views of the

drawings for consistency. Additional replacement sheets may be necessary to show the

renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an

application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet"

pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will

be notified and informed of any required corrective action in the next Office action. The

objection to the drawings will not be held in abeyance.

Specification

2.   The disclosure is objected to because of the following informalities:

- in paragraph 24, line 11, "304" should be changed to "300."

Appropriate correction is required.

Claim Objections

3.   Claim 2 is objected to because of the following informalities:

- in claim 2, line 2, "an" should be changed to "a."

Appropriate correction is required.

Claim Rejections - 35 USC § 112

4.   The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5.   Claims 6 and 9-16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claims 6 and 16, it is unclear how the monitor resource controller (MRC) is for receiving adaptive selections of policies from the policy information database as it appears to have the same function as the RSS/means for controlling as recited in independent claims 1 and 9 (see also the function of MRC 304 in the specification, page 9, lines 8-16, and Fig. 3A). Therefore, the claims are vague and indefinite. The Office is interpreting the claims as a monitor resource controller (MRC) for distributing the statistics reports generated by the FMS (without receiving adaptive selections of policies).

In claim 9, line 13, "the resource server system" lacks antecedent basis.

In claim 16, line 1, "the DC" lacks antecedent basis.

Claim Rejections - 35 USC § 103

6.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7.   Claims 1- 14 and17-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Choi (US 2004/0109414 A1) in view of Shin (US 2002/0138643 A1).

Regarding claim 1, Choi teaches a packet router (300, Fig. 3), comprising:

A resource server system RSS (router control unit 310, Fig. 3 and 400 in Fig. 4) that

controls forwarding of packets in the packet router (paragraphs 23-24).

A flow measurement system FMS (the line interface units 321-324 in Fig. 3,collectively,

which function as an eGSMP slave 702 in Fig. 7) that monitors packet flows through the packet

router and generates statistic reports (paragraphs 23 and 34).

A hardware forwarding engine HFE (the ingress processing unit 540 and the egress

processing unit 550 in Fig. 5, collectively) that receives and forwards packets in response to the

RSS controls (paragraph 25).

However, Choi fails to explicitly teach (i) a management agent MA that manages a

differentiated services policy information data base operable to store policies on forwarding

packets in the packet router, (ii) the control forwarding of packets by the RSS is based on

adaptive selections of policies from the policy information database, (iii) the statistics reports affect the RSS selection of control.

As shown in Fig. 1 of an analogous art, Shin teaches a system for adaptive controlling network traffic to a server with an adaptive traffic-shaping feature having a policy manager daemon (equivalent to i) for storing a set of rule data which represents different policies for servicing the network traffic; paragraphs 36, 39, 80-84, and claim 11, and the load controller/means (equivalent to ii) for adaptively selecting a subset of the rule data from the storage based on the overload/underload signals (equivalent to iii, note that the format of statistic reports is not claimed, therefore, statistic reports are interpreted as the overload/underload signals which are generated based on system statistics) generated by a monitor; paragraphs 39, 67, and 70-72.

Given the teaching of Shin, it would have been obvious to one skilled in the art at the time of the invention to incorporate and apply the adaptive traffic-shaping concept of Shin in the teaching of Choi such that the limitations i, ii, and iii would be included as claimed. The suggestion/motivation to do so would have been to adapt the traffic shaping policies without any a priori capacity analysis or static resource reservation as suggested by Shin (paragraph 59, lines 9-11).

Regarding claim 2, Choi does not teach that the MA resides in a management plane of a communications network.

However, it is inherent in Shin that the policy manager daemon (equivalent to the MA) must reside in a management plane of the Internet (equivalent to a communications network)

since the policy manager creates filter-hierarchies which are used to filter internet network traffic (paragraphs 39-40, 71-72, 81-84).

Given the teaching of Shin, it would have been obvious to one skilled in the art at the time of the invention to modify the teaching of Choi such that the MA would reside in a management plane of a communications network. The suggestion/motivation to do so would have been to determine the server's (equivalent to the packet router's) operating point from oscillations of the load-controller (equivalent to RSS) and reconfigures the load-controller's FH (equivalent to RSS's selection of policies) accordingly (Shin, paragraph 81, lines 9-12).

Regarding claim 3, Choi teaches that the RSS resides in a control plane of a communications network (IP network 100, Fig. 1, paragraph 21) (router control unit 310, Fig. 3 functions as eGSMP master, paragraph 23).

Regarding claims 4 and 5, Choi also teaches that the HFE resides in a data plane of a communication network comprising an IP network (IP network 100, Fig. 1, paragraph 21) (the ingress processing unit 540 and the egress processing unit 550 in Fig. 5, collectively, that performs packet forwarding function including a DiffServ based on QoS function, paragraph 25).

Regarding claim 6, Choi teaches that the FMS includes a monitor resource controller MRC for distributing the statistics reports generated by the FMS (as shown in Fig. 7, statistics information is sent to eGSMP MASTER 701 by eGSMP SLAVE 702 in step S74, therefore, the eGSMP SLAVE 702 must include a MRC, paragraphs 23 and 34).

Regarding claim 7, Choi teaches that the FMS includes a monitor resource abstraction

library MRAL that functions as a real-time monitor executive and generates the statistics reports

(as shown in Fig. 7, statistics information is sent in step S74 and real time monitoring must be

included in order for event/status information to be sent in step S74, therefore, the eGSMP

SLAVE 702 must include a MRAL, paragraphs 23 and 34).

Regarding claim 8, Choi fails to explicitly teach that the FMS includes a monitor data

collector/data source controller MDC for receiving data collected at observation points of the

HFE.

However, Shin teaches that the monitoring module (equivalent to the FMS with MDC)

that assesses server capacity based on its observations of different load indicators (equivalent to

receiving data collected at observation points of the HFE) (paragraph 67).

Therefore, it would have been obvious to one skilled in the art at the time of the invention

to further modify the teaching of Choi to apply the data collection concept of Shin such that the

FMS would include a monitor data collector/data source controller MDC for receiving data

collected at observation points of the HFE as claimed. The suggestion/motivation to do so would

have been to generate a notification if the load-index (equivalent to data collected) falls into a

certain range as taught by Shin (paragraph 67, lines 8-10).

Claims 9-14 are system claims containing similar limitations to claim 1, and are therefore

rejected under the same reason set forth in the rejection of claim 1.

Claims 17-22 are method claims corresponding to system claim 1, and are therefore

rejected under the same reason set forth in the rejection of claim 1.

Allowable Subject Matter

8.   Claims 15 and 16 would be allowable if rewritten to overcome the rejection(s) under 35

U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of

the base claim and any intervening claims.

Conclusion

9.   The prior art made of record and not relied upon is considered pertinent to applicant's

disclosure.

-      US 6,822,940 B1 (disclosing method and apparatus for adaptively enforcing QoS

policies for packet flows in a packet-switched network based on network feedback information,

Abstract and Fig. 5).

-      US 6,286,052 B1 (disclosing a system that identifies specific traffic flows and applies

appropriate policy rules or service treatments to the traffic flows, Abstract and Figs. 2 and 3).

-      US 2003/0033519 (disclosing a system and method for creating, monitoring and

modifying services, Figs 1 and 4, and paragraph 43).

10.   Any inquiry concerning this communication or earlier communications from the

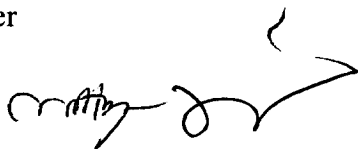examiner should be directed to Nittaya Juntima whose telephone number is 571-272-3120. The

examiner can normally be reached on Monday through Friday, 8:00 A.M - 5:00 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Huy Vu can be reached on 571-272-3155. The fax phone number for the

organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would

like assistance from a USPTO Customer Service Representative or access to the automated

information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Nittaya Juntima
Patent Examiner
April 15, 2007